AMENDMENTS TO THE CLAIMS

1. (Previously presented) An expression vector comprising a reading frame that does not encode a whole tumor associated antigen, wherein the reading frame comprises a first sequence, wherein said first sequence encodes one or more segments of tumor-associated antigen SSX-2 (SEQ ID NO: 40), and wherein each segment comprises an epitope cluster, said cluster comprising or encoding at least two amino acid sequences having a known or predicted affinity for a same MHC receptor peptide binding cleft, wherein said expression vector comprises a promoter operably linked to said reading frame.

2. (Previously presented) The expression vector of claim 1, wherein said epitope cluster is chosen from the group consisting of amino acids 5-28, 16-28, 41-65, 57-67, 99-114, 167-180, and 167-183 of SSX-2.

3. (Previously presented) The expression vector of claim 1, wherein said one or more segments consist of said epitope cluster.

4. (Previously presented) The expression vector of claim 1, wherein said first sequence encodes a fragment of SSX-2.

5. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 90% of the length of SSX-2.

6. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 80% of the length of SSX-2.

7. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 60% of the length of SSX-2.

8. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 50% of the length of SSX-2.

9. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 25% of the length of SSX-2.

10. (Previously presented) The expression vector of claim 4, wherein said encoded fragment consists of a polypeptide having a length, wherein the length of the polypeptide is less than about 10% of the length of SSX-2.

11. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 5-65, 5-67, or 5-114.

12. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 16-65, 16-67, 16-114, 16-180, or 16-183.

13. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 41-67, 41-114, 41-180, or 41-183.

14. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 57-114, 57-180, or 57-183.

15. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 99-180 or 99-183.

16. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises amino acids 16-183 of SSX-2.

17. (Previously presented) The expression vector of claim 16, wherein said first sequence encodes exactly amino acids 15-183 of SSX-2.

18. (Previously presented) The expression vector of claim 4, wherein said encoded fragment comprises an amino acid sequence beginning at one of amino acids selected from the group consisting of 5, 16, 41, 57, and 99 of SSX-2, and ending at one of the amino acids selected from the group consisting of amino acid 65, 67, 114, 180, and 183 of SSX-2

19. (Previously presented) The expression vector of claim 1, further comprising a second sequence, wherein the second sequence encodes a housekeeping epitope that is mature or that is flanked by one to several additional amino acids which permit the housekeeping epitope to liberated by immunoproteasomal processing, directly or in combination with N-terminal trimming or the action of exogenous enzymatic activities.

20. (Previously presented) The expression vector of claim 1, wherein said reading frame is operably linked to a promoter.

21. (Previously presented) The expression vector of claim 19, wherein said first and second sequences constitute a single reading frame.

22. (Cancelled)

23. (Previously presented) An isolated polypeptide comprising the amino acid sequence encoded in said reading frame of claim 1.

24. (Previously presented) An immunogenic composition comprising the expression vector of claim 1.

25. (Previously presented) An immunogenic composition comprising the polypeptide of claim 23.

26. (Previously presented) The expression vector of Claim 4, wherein said encoded fragment consists of amino acids 5-65, 5-67, 5-114, 16-65, 16-67, 16-114, 16-180, 16-183, 41-67, 41-114, 41-180, 41-183, 57-114, 57-180, 57-183, 99-180 99-183, 16-183 or 15-183 of SSX-2, with zero to six additional amino acids on at least one terminus.

27. (Previously presented) The expression vector of Claim 19, wherein said second sequence encodes a string of epitopes, wherein one or more of said epitopes is the housekeeping epitope.

28. (Previously presented) An isolated nucleic acid comprising:

a reading frame comprising a first sequence, wherein said first sequence encodes one or more segments of tumor-associated antigen SSX-2 (SEQ ID NO: 40), and wherein each segment comprises an epitope cluster, said cluster comprising or encoding at least two amino acid sequences having a known or predicted affinity for a same MHC receptor peptide binding cleft, wherein the isolated nucleic acid does not encode the complete SSX-2 antigen; and

a liberation sequence.

29. (Previously presented) The isolated nucleic acid of Claim 28, wherein the liberation sequence is part of the same reading frame as said first sequence.

30. (Previously presented) The isolated nucleic acid of Claim 28, wherein the liberation sequence is part of a different reading frame than the first sequence.

31. (Cancelled)